

# IWX Observer

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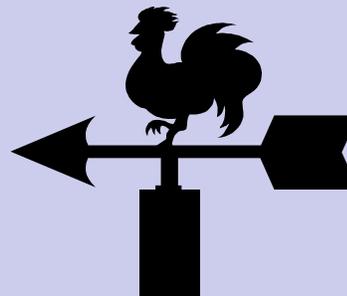
## Our Inaugural Issue

Welcome to our inaugural issue of the IWX Observer. What is this newsletter all about you ask? Well, it's a publication for all you weather observers out there. In this issue and subsequent issues you will find articles to help you in gathering weather data correctly and how to maintain your weather equipment, any awards that have been given out, and just articles on what is happening in our cwa's (county warning area) cooperative program.

If you are wondering what IWX stands for, it is our station ID. Every NWS office and city throughout the United States has an ID. Other cities throughout other nations also have an ID. Every place in Canada starts with a 'Y' and every place in the United

States starts with a 'K'. So our office ID is KIWX. Once

again, if anyone ever encounters a problem or you have a question or need anything, call us or send in a B-91 Form through our web site or by mail.



*Weather vane*

## Reminders

● For those of you who have a Fischer-Porter rain gage, remember to call us when the gage indicator is in the area that reads 'empty gage'. We will come and empty the gage for you or you can empty the gage into a bucket for us to pick up on our next visit. If you decide to empty it yourself, please use the tube that

is attached to the bucket.

- Remember to remove the funnel and inner tube in your 8-inch raingage when it starts to snow.
- Remember to send in your data to us by the 10th of each month.

IWX Observer Editor:

Brentley Lothamer

# Winter Weather Observation Guidelines

Measure and record the greatest amount of snowfall that has accumulated on your snowboard (wooden deck or ground if board is not available) since the previous snowfall observation. This measurement should be taken minimally once a day (but can be taken up to 4 times a day) and should reflect the greatest accumulation of new snow observed (in inches & tenths since the last snowfall observation. If snowfall occurred several times during the period, and each snowfall melted either completely or in part before the next snowfall, record the total of the greatest snowdepths of each event and enter in your remarks "snowfall melted during the OBS period.

If snowfall continually melts as it lands, and the accumulation never reaches 0.1 inches on your measuring surface, snowfall should be recorded as a trace (T) and record in your remarks that the "snow melted as it landed". It is essential to measure snowfall (& snow depth) in locations where the effects of blowing and drifting are minimized.

If you take your obs every 6 hrs, make sure that you clear your snowboard (or other measuring surface) no more than once every 6 hrs. Never sum more than 4, six-hourly observations to determine your 24-hour snowfall total.

**SNOW MEASUREMENT GUIDE**  
OBSERVERS WITH NON-RECORDING GAGES RECORD THREE MEASUREMENTS WHEN IT SNOWS

**1 WATER IN THE SNOW**  
Record in this column to inches and hundredths.  
Melt contents of gage and measure like rain. If high winds have blown snow out of the gage, the outer container is used to obtain a substitute sample from the snow on the ground whose depth represents the amount that fell since yesterday's observation.

**2 SNOWFALL SINCE YESTERDAY'S OBSERVATION**  
Record in this column to the nearest 0.1 inch.  
Find some place where the freshly fallen snow is least drifted and is about average depth for the locality. Measure the depth of the snow which fell since yesterday's observation. Report an estimate if the snow melted before observation time.  
When significant amounts of new snowfall have occurred round off to the nearest inch and record as, for example, 2.0 and 3.0. (Record as 2.0 not 2, 3.0 not 3).

**3 DEPTH OF SNOW ON THE GROUND AT OBSERVATION TIME**  
Record in this column to nearest inch if less than 16 inch, record "T".  
Any time there is snow on the ground at observation time record average depth on ground at observation time. Include old snow as well as newly fallen snow.

**A.** Pour rain water into the tube.  
**B.** Measure.  
**C.** Empty into the can to melt the snow.  
**D.** Empty the can into the tube.  
**E.** Submerge the funnel and measure.  
**F.** Measure.  
**G.** 24 HOUR RECORD

At the beginning of the snowfall season only the 8-inch gage can is exposed to catch the snow. The funnel and measuring tube are removed at the beginning of the snowfall season. The measuring tube is used to measure the water from the melted snow.  
\*removed during winter months  
snow water fall in representative quantity into the gage if the funnel and measuring tube are not removed.  
(See reverse side for steps 2 and 3)

Freezing rain (glaze ice) should never be reported as snowfall. This precipitation type is liquid precipitation and should be reported as such.

Determine the total depth of snow, sleet, or ice on the ground. This observation is taken once a day at the scheduled time of observation with a measuring stick. The measurement should reflect the average depth of snow, sleet, and glaze ice on the ground at your usual measurement site (not disturbed by human activities). Measurements from rooftops, paved areas, and the like should not be made.

Report snow depth to the nearest whole inch, rounding up when one-half inch increments are reached (example 0.4 inches gets reported as a trace (T), 3.5 inches gets reported as 4 inches).

Measuring the water equivalent of snowfall since the previous day's observation. This measurement is taken once a day at your specified time of observation.

Winter is the hardest time of year to make weather observations. So, please stay familiar with winter weather observation procedures and guidelines. We at the NWS appreciate all of your hard winter weather work.

**2 MEASURING THE DEPTH OF SNOW**  
Find some place where the freshly fallen snow is least drifted and is about average depth for the locality. Measure the depth of the snow which fell since yesterday's observation. Report an estimate if the snow melted before observation time.  
When significant amounts of new snowfall have occurred round off to the nearest inch and record as, for example, 2.0 and 3.0. (Record as 2.0 not 2, 3.0 not 3).

**3 24 HOUR RECORD**  
Record the following in the indicated columns.

12	13	14	15	16	17	18	19	20	21	22	23	24
4	2	1	1	1	1	1	1	1	1	1	1	1
4	2	1	1	1	1	1	1	1	1	1	1	1
4	2	1	1	1	1	1	1	1	1	1	1	1

## The Upcoming Winter Season

The past few winters have been under the influence of La Nina or El Nino. This has caused the past few winters to be anything but normal. The upcoming winter season, however, has been projected to be a normal one. What's normal you ask? Well lets take a look at the normals for Fort Wayne and South Bend. For Fort Wayne, December's normal high is 35.5 degrees F, normal low is 21.6 degrees F, the normal precipitation is 2.89 inches, and the normal snowfall is 7.1 inches. For January, the normal high is 30.4 F, normal low is 15.3F, normal precip. is 1.87 inches, and normal snow-

fall is 8.2 in. For February, the normal high is 34.0 F, normal low is 17.8 F, normal precip. is 1.91 in., & normal snowfall is 7.5 in. For December in South Bend, the normal high is 35.4 F, normal low is 22.3 F, normal precip. is 3.30 in., & normal snowfall is 21.0 in. January's normal high is 30.4 F, normal low is 16.1 F, normal precip. is 2.23 in., & normal snowfall is 22.8 in. February's normal high is 34.1 F, normal low is 18.7 F, normal precip. is 1.90 in., & normal snowfall is 16.0 in.

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*Our cooperative observers are spread out throughout Northern Indiana, Southern Michigan, and Northwest Ohio. We have a total of 95 Cooperative stations. 67 in Indiana, 14 in Ohio, and 14 in Michigan. Day in and day out you gather weather data for us and send it in to us. We just want to say thank you! We appreciate it very much! Keep up the good work!*

## Common Errors To Avoid

Maximum and minimum temperature data are keyed into computers at NCDC (National Climatic Data Center). Data which are inconsistent must either be rejected or corrected (estimated). Observations are flagged most commonly for the following types of errors.

- 1) Maximum temperature lower than the time of observation temperature at the previous observation (24 hours earlier). This error is most frequently committed by people taking observations in the afternoon or evening.
- 2) Minimum temperature higher than the time of observation temperature at the previous observation (24 hours earlier). This error is most frequent among morning observers.
- 3) Maximum (and occasionally the minimum) temperature entered on the B-91 on the day it occurred, rather than on the day the thermometers were read and reset. For example, a morning observer records high and low temperatures for the past 24 hours at 7 a.m. on the 25th as being 88 and 62. He knows the

maximum of 88 occurred on the 24th (the previous afternoon), so he records it on his B-91 on the 24th. This should be recorded on the 25th, since that is the day he read and reset his instruments.

The most common cause of errors (1) and (2) is resetting the MMTS or the maximum and/or minimum thermometers between times of observation. The maximum temperature for the past 24 hours must be at least as high as the time of observation temperature both today and 24 hours earlier, and the minimum at least as low as today's and 24 hours ago. This error appears to be committed because, for example, the afternoon observer wants to record this afternoon's maximum temperature when it is lower than yesterday afternoon's maximum. This situation usually arises when it was warmer yesterday than today. Today's maximum should be recorded in the REMARKS column as, for example, "p.m. max 48" or "today's max 48," and last night's minimum as "a.m. min 36."